PREFACE

Jean CROS

Having completed the reading of this work, one can only feel satisfied for having encouraged Laurence LAFANECHÈRE, Sylvaine ROY and Eric MARÉCHAL, who attempted and succeeded in achieving the impossible: writing, along with colleagues from the public sector, a book that will endure, concerning a technology the mastery of which had remained until this point the domain of the pharmaceutical industry. Indeed, this work has arisen from the competence and practical knowledge of fifteen or so academic scientists who, often against the tide of strategies defined by their host organisations, have established automated pharmacological screening for fundamental research ends. It is important to recall that the first book *High throughput screening*, edited in 1997 by John P. DEVLIN, which enabled all scientists to discover the importance of robotics in the discovery of new medicines, was written by about a hundred contributors, all of whom were industrial scientists involved in drug discovery.

Over the last ten years, we have seen appear in the scientific literature much more about 'small' molecules coming from robotic screens that have been used with success in revealing new biological mechanisms. From drug candidate, the molecule has thus become a research tool.

The successful experience at Harvard is a fertile example which should serve as a model for some of our research centres: basic research in chemical genetics, discovery of new drug candidates and training of young researchers. May this book, which has developed out of training workshops organised by the CNRS, CEA and INSERM, be the stimulus for future careers in a field which is eminently multidisciplinary and which brings together biologists, chemists, informaticians and robotics specialists. The great merit of this book is to have simply, from everyday experiences, united researchers and competencies that until now had not associated with one another.

Beyond the new terms that we discover or rediscover throughout the chapters: chemical genetics, cheminformatics, chemogenomics etc., there are the techniques, certainly, but also and above all there are the scientific questions to which these technologies will henceforth help to find answers. In addition, there are the economic issues that from now on become the duty of every researcher to take into account.

Congratulations to all of the authors and editors.